



PCT

RAW SEQUENCE LISTING

DATE: 07/29/2004

PATENT APPLICATION: US/10/502,307

TIME: 16:07:49

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\07292004\J502307.raw

3 <110> APPLICANT: Burioni, Roberto

5 <120> TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODY FAB FRAGMENTS DIRECTED AGAINST HCV

E2

6 GLYCOPROTEIN AND ENDOWED WITH IN VITRO NEUTRALIZING ACTIVITY

W--> 7 <130> FILE REFERENCE: 30068

C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/502,307

C--> 9 <141> CURRENT FILING DATE: 2004-07-22

9 <150> PRIOR APPLICATION NUMBER: IT RM2002A/000049

10 <151> PRIOR FILING DATE: 2002-01-30

12 <160> NUMBER OF SEQ ID NOS: 24

14 <170> SOFTWARE: PatentIn version 3.1

16 <210> SEQ ID NO: 1

17 <211> LENGTH: 119

18 <212> TYPE: PRT

19 <213> ORGANISM: Homo sapiens

21 <400> SEQUENCE: 1

23 Leu Leu Glu Gln Ser Gly Ala Glu Val Lys Met Pro Gly Ala Thr Val

24 1 5 10 15

27 Lys Val Ser Cys Gln Ser Ser Arg Tyr Thr Phe Thr Ser Tyr Gly Ile

28 20 25 30

31 Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp

32 35 40 45

35 Ile Ser Gly Tyr Thr His Glu Thr Lys Tyr Ala Gln Ser Phe Gln Gly

36 50 55 60

39 Arg Val Thr Met Thr Ala Glu Thr Ser Thr Gly Thr Ala Tyr Met Glu

40 65 70 75 80

43 Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Thr Tyr Tyr Cys Ala Arg

44 85 90 95

47 Asp Gly Gly Gly Arg Val Val Val Pro Pro Thr His Leu Arg Ala Phe

48 100 105 110

51 Asp Val Trp Gly Gln Gly Thr

52 115

55 <210> SEQ ID NO: 2

56 <211> LENGTH: 104

57 <212> TYPE: PRT

58 <213> ORGANISM: Homo sapiens

60 <400> SEQUENCE: 2

62 Met Ala Glu Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly

63 1 5 10 15

66 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser His Arg Val Asn Asn Asn

67 20 25 30

70 Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu

71 35 40 45

74 Ile Ser Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser

ENTERED

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75      50      55      60
78 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
79 65      70      75      80
82 Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Asp Ser Pro
83      85      90      95
86 Leu Tyr Ser Phe Gly Gln Gly Thr
87      100
90 <210> SEQ ID NO: 3
91 <211> LENGTH: 124
92 <212> TYPE: PRT
93 <213> ORGANISM: Homo sapiens
95 <400> SEQUENCE: 3
97 Leu Leu Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser
98 1      5      10      15
101 Leu Thr Cys Thr Val Ser Gly Val Ser Ile Ser Tyr Gly Gly Arg Gly
102      20      25      30
105 Val Ser Tyr Trp Gly Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu
106      35      40      45
109 Trp Ile Gly His Ile Tyr Tyr Phe Gly Asp Thr Phe Tyr Asn Pro Ser
110      50      55      60
113 Leu Asn Asn Arg Ala Thr Ile Ser Ile Asp Ser Ser Lys Asn Gln Phe
114 65      70      75      80
117 Ser Leu Lys Leu Lys Ser Val Thr Ala Ser Asp Thr Ala Leu Tyr Phe
118      85      90      95
121 Cys Ala Arg Ser Thr Leu Gln Tyr Phe Asp Trp Leu Leu Thr Arg Glu
122      100      105      110
125 Ala Ala Tyr Ser Ile Asp Phe Trp Gly Gln Gly Ile
126      115      120
129 <210> SEQ ID NO: 4
130 <211> LENGTH: 102
131 <212> TYPE: PRT
132 <213> ORGANISM: Homo sapiens
134 <400> SEQUENCE: 4
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137 1      5      10      15
140 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Val Thr Ile Leu
141      20      25      30
144 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro Lys Ala Leu Ile
145      35      40      45
148 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
149      50      55      60
152 Ser Gly Ser Asp Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
153 65      70      75      80
156 Glu Asp Ser Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Thr Tyr Pro Trp
157      85      90      95
160 Thr Phe Gly Gln Gly Thr
161      100
164 <210> SEQ ID NO: 5
165 <211> LENGTH: 116

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166 <212> TYPE: PRT
167 <213> ORGANISM: Homo sapiens
169 <400> SEQUENCE: 5
171 Leu Leu Glu Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser Ser Val
172 1 5 10 15
175 Lys Val Ser Cys Lys Ala Ser Gly Asp His Tyr Gly Ile Asn Trp Val
176 20 25 30
179 Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Gly Ile Ile Pro
180 35 40 45
183 Val Phe Gly Thr Thr Thr Tyr Ala Gln Lys Phe Gln Gly Arg Ala Thr
184 50 55 60
187 Ile Thr Ala Asp Asp Ser Thr Gly Thr Ala Phe Leu Glu Leu Thr Arg
188 65 70 75 80
191 Leu Thr Phe Asp Asp Thr Ala Val Tyr Phe Cys Ala Thr Pro His Gln
192 85 90 95
195 Leu His Val Leu Arg Gly Gly Lys Ala Leu Ser Pro Trp Asp Tyr Trp
196 100 105 110
199 Gly Gln Gly Thr
200 115
203 <210> SEQ ID NO: 6
204 <211> LENGTH: 102
205 <212> TYPE: PRT
206 <213> ORGANISM: Homo sapiens
208 <400> SEQUENCE: 6
210 Met Ala Glu Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
211 1 5 10 15
214 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
215 20 25 30
218 Leu Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Ser Leu Leu Ile
219 35 40 45
222 Tyr Gly Thr Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
223 50 55 60
226 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
227 65 70 75 80
230 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Ser
231 85 90 95
234 Thr Phe Gly Gln Gly Thr
235 100
238 <210> SEQ ID NO: 7
239 <211> LENGTH: 120
240 <212> TYPE: PRT
241 <213> ORGANISM: Homo sapiens
243 <400> SEQUENCE: 7
245 Leu Leu Glu Gln Ser Gly Ser Glu Val Lys Val Pro Gly Ser Ser Leu
246 1 5 10 15
249 Lys Val Ser Cys Lys Thr Ser Gly Gly Thr Phe Ser Thr Tyr Thr Phe
250 20 25 30
253 Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Gly
254 35 40 45

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257 Ile Thr Pro Ile Ile Gly Ile Ala Asn Tyr Ala Arg Asn Phe Gln Asp
258     50                      55                      60
261 Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Val Tyr Met Glu
262 65                      70                      75                      80
265 Val Arg Arg Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Lys
266                      85                      90                      95
269 Thr Ser Glu Val Thr Ala Thr Arg Gly Arg Thr Phe Phe Tyr Ser Ala
270                      100                      105                      110
273 Met Asp Val Trp Gly Gln Gly Thr
274          115                      120
277 <210> SEQ ID NO: 8
278 <211> LENGTH: 102
279 <212> TYPE: PRT
280 <213> ORGANISM: Homo sapiens
282 <400> SEQUENCE: 8
284 Met Ala Glu Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
285 1          5                      10                      15
288 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
289          20                      25                      30
292 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
293          35                      40                      45
296 Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
297          50                      55                      60
300 Ser Gly Ser Trp Thr Glu Phe Thr Leu Thr Ile Ser Arg Leu Gln Pro
301 65                      70                      75                      80
304 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His Leu Asn Thr Tyr Pro Trp
305          85                      90                      95
308 Thr Phe Gly Gln Gly Thr
309          100
312 <210> SEQ ID NO: 9
313 <211> LENGTH: 118
314 <212> TYPE: PRT
315 <213> ORGANISM: Homo sapiens
317 <400> SEQUENCE: 9
319 Leu Leu Glu Gln Ser Gly Ser Glu Val Lys Lys Pro Gly Ser Ser Val
320 1          5                      10                      15
323 Arg Val Ser Cys Thr Thr Ser Gly Gly Thr Leu Ser Asp Tyr Gly Phe
324          20                      25                      30
327 Asn Trp Leu Arg Gln Ala Pro Gly Gln Gly Pro Glu Trp Met Gly Gly
328          35                      40                      45
331 Ile Ile Pro Leu Phe Arg Arg Thr Thr Tyr Gly Gln Lys Phe Gln Gly
332          50                      55                      60
335 Arg Leu Thr Ile Thr Ala Asp Glu Ser Thr Gly Ala Thr Tyr Met Glu
336 65                      70                      75                      80
339 Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg
340          85                      90                      95
343 Glu Lys Val Ser Val Leu Thr Gly Gly Lys Ser Leu His Tyr Phe Glu
344          100                      105                      110
347 Tyr Trp Gly Lys Gly Thr

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348      115
351 <210> SEQ ID NO: 10
352 <211> LENGTH: 102
353 <212> TYPE: PRT
354 <213> ORGANISM: Homo sapiens
356 <400> SEQUENCE: 10
358 Met Ala Glu Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
359 1      5      10      15
362 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Arg
363      20      25      30
366 Leu Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Ser Leu Leu Ile
367      35      40      45
370 Tyr Asp Thr Ser Ser Arg Ala Thr Gly Val Pro Ala Arg Phe Ser Ala
371      50      55      60
374 Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
375 65      70      75      80
378 Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Ser
379      85      90      95
382 Thr Phe Gly Gln Gly Thr
383      100
386 <210> SEQ ID NO: 11
387 <211> LENGTH: 118
388 <212> TYPE: PRT
389 <213> ORGANISM: Homo sapiens
391 <400> SEQUENCE: 11
393 Leu Leu Glu Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser Ser Val
394 1      5      10      15
397 Lys Val Ser Cys Lys Thr Ser Gly Asp Thr Phe Arg Tyr Gly Ile Thr
398      20      25      30
401 Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Gln Ile
402      35      40      45
405 Met Pro Thr Phe Ala Thr Ala Thr Tyr Ala Gln Arg Phe Gln Gly Arg
406      50      55      60
409 Val Thr Ile Ser Ala Asp Glu Ser Thr Ser Thr Ala Tyr Leu Glu Val
410 65      70      75      80
413 Arg Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr Pro
414      85      90      95
417 Arg Gln Val Thr Ile Leu Arg Gly Pro Lys Ala Leu Ser Pro Trp Asp
418      100      105      110
421 Tyr Trp Gly Gln Gly Thr
422      115
425 <210> SEQ ID NO: 12
426 <211> LENGTH: 102
427 <212> TYPE: PRT
428 <213> ORGANISM: Homo sapiens
430 <400> SEQUENCE: 12
432 Met Ala Glu Leu Thr Gln Ser Pro Ala Thr Leu Ser Ala Ser Pro Gly
433 1      5      10      15
436 Glu Arg Ala Ser Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn

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VERIFICATION SUMMARY

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Input Set : A:\PTO.FG.txt

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L:7 M:283 W: Missing Blank Line separator, <130> field identifier

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date